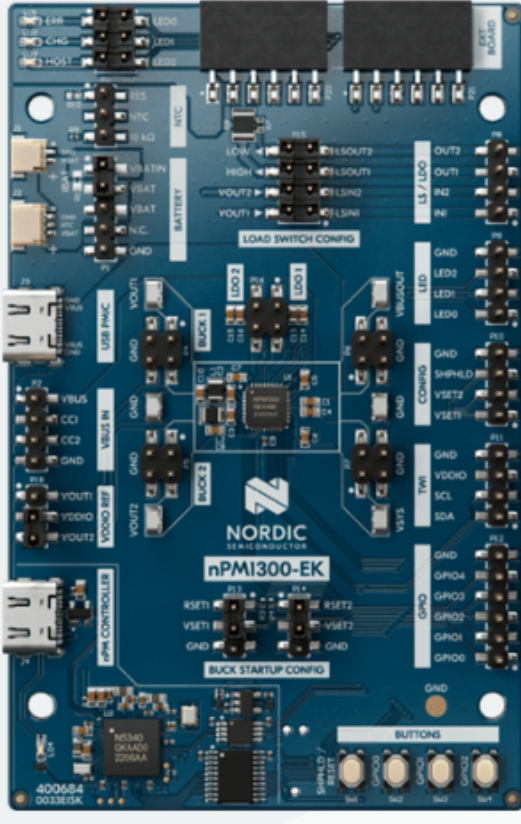
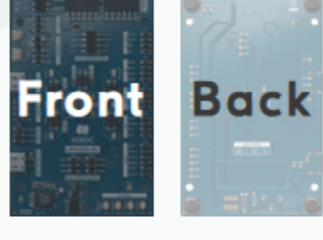




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nPMI300 EK

Eng 简体

Ask us about this

Evaluation Kit

Evaluation Kit for the nPMI300, a highly sophisticated Power Management IC (PMIC) with battery charging and unique system management features

The nPMI300 Evaluation Kit allows for simple evaluation and code-free configuration of the nPMI300 Power Management IC (PMIC). By connecting to the nPM PowerUP app found in nRF Connect for Desktop, all settings of the nPMI300 can easily be configured through an intuitive GUI and exported as code to be implemented in your MCUs application.

- Seamless integration and code-free configuration with the nPM PowerUP desktop app
- Male pin headers provide access to all nPMI300 PMIC connections, for easy connection to Nordic Development Kits (DK) and external test equipment
- Integrated LEDs and pushbuttons allow for evaluation of the built-in LED drivers and GPIOs of the PMIC

The kit itself offers JST battery connectors for batteries with or without internal NTC, and male pin headers for access to all nPMI300 connections. In addition, three LEDs and four pushbuttons are implemented for ease of use when evaluating the GPIO and LED diver functionality of the PMIC.

For initial evaluation of the fuel gauging capabilities within the nPMI300, users may use one of the pre-profiled battery models already included in nPM PowerUP. The fuel gauge solution relies on a battery model for best state-of-charge accuracy. Profiling your battery and generating a battery model is a one time effort where you'll need an additional nPM Fuel Gauge board for the initial profiling of the battery.

To get the information from this page in a print friendly one-page format, download the nPMI300 product brief.

Download nPMI300 EK product brief [PDF]

Key features

Connects to nPM Fuel Gauge board for battery profiling

Male pin headers for all pins on the nPMI300 PMIC, and battery connectors

USB-C for power and data communication

Three LEDs and four pushbuttons

nPMI300 - highly efficient PMIC with advanced system management features

Seamless configuration through nPM PowerUP desktop software

Documentation

Downloads

- Overview Fuel gauging Development software Development hardware Development tools Downloads Get started

Watch & Learn

Learn how to use the nPMI300 in your application



Add PMIC functionality to ANY nRF Connect SDK application



Get to know more about the nPMI300 PMIC

nPMI300 PMIC

nPMI300 PMIC

Power Management IC (PMIC) with unique system management features

The nPMI300 is designed to provide highly efficient power regulation for Nordic's nRF52 and nRF53 Series, as well as the nRF54L and nRF54H Series wireless multiprotocol Systems-on-Chip (SoC). The PMIC is also suitable for battery charging for applications based on the nRF91 Series systems-in-package (SiPs) for cellular IoT, by using the PMIC's unregulated output to power the SiP's internal buck regulators.

Devices using the nPMI300 and a compatible SoC or SiP also get access to the Nordic Fuel Gauge, a highly accurate, ultra-low-power way of estimating state-of-charge of rechargeable batteries.

Read more



Fuel gauging

Low power high accuracy fuel gauging tailored for embedded IoT

To accurately estimate the battery state-of-charge in percent, from 0 to 100 %, the nPMI304's fuel gauge functionality uses a model of your battery along with the battery's temperature, voltage and the current measured by the PMIC. The estimation algorithm can then be run on any Arm Cortex M4 or M33, like those found in the nRF52, nRF53 and nRF91 Series and does not require additional hardware beyond this.

The battery model is created by doing an analysis of your specific battery, in your own lab, with the help of the nPMI304 Evaluation Kit

Read more about battery model creation:

→ nPMI30x Fuel gauge application note

Read more about Power Management

nordicsemi.com/products/power-management